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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,232	07/25/2003	George Van Campen	1027.P005USC1	2443

29053 7590 07/27/2005

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EXAMINER	
FAULCON JR, LENWOOD	
ART UNIT	**PAPER NUMBER**
3762	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/627,232	CAMPEN ET AL.	
	Examiner	Art Unit	
	Lenwood Faulcon, Jr.	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/22/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-6, 9-11, 13 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by North et al. (U.S. 2001/0007950).

North et al. teaches of patient interactive neurostimulation system and method, which comprises implantable pulse generators (paragraph 21). North et al. also teaches of the system further including a data memory unit adapted to store a plurality of parameters for a multiplicity of specific predetermined programming codes (paragraph 40). North et al. further teaches of a control interface built on the basis of a microprocessor (paragraph 110). North et al. also teaches that the interface circuitry interfaces with the data memory that stores a variety of pulse parameters that are to be generated (paragraph 111). North et al. also teaches of the implant system comprises a lead and array of electrodes which can be programmed independently (paragraphs 101-102). North et al. further teaches that the electrodes are the active conductive area of the lead and that for providing neurostimulation, a plurality of pairs of positive and negative electrodes are used (paragraph 102). North et al. also teaches of skipping parameters that are associated with the stimulation settings (paragraphs 252-253, figures 13A-13D and 14A-14B).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2-3, 7-8, 14-15 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over North et al. (U.S. 2001/0007950) as applied to claims 1, 4-6, 9-11, 13 and 16-18 above, in view of Lynch (U.S. Patent No. 5,038,781).

Lynch teaches of an implantable multi-electrode neurological stimulation apparatus, comprising a master circuitry case that and multiple leads for carrying stimulation pulses (col. 2 lines 49-55). Lynch also teaches of the ability to stimulate a large number of muscle groups, in part by including multiple electrodes per group (col. 3 lines 56-59). Lynch further teaches of skipping parameter is associated with a stimulation setting, in which electrical stimulation is skipped for a cycle (col. 13 lines 30-44).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of North et al. with the teachings of Lynch. North et al. and Lynch both teach of neurostimulation systems and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by North et al. to have a skipping parameter that is associated with a stimulation setting, that skips a stimulation pulse for a cycle or

cycles for enhancing the effectiveness of treatment as taught by Lynch, since North et al. teaches of skipping stimulation parameters.

It would have also been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by North et al. to have the electrode arrays comprise multiple individual electrodes that can be independently programmed to treat various conditions and tissue sites as taught by Lynch. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of North et al. and Lynch to have the limitations of claims 2-3, 7-8, 14-15 and 19-23.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over North et al. (U.S. 2001/0007950) in view of Lynch (U.S. Patent No. 5,038,781) as applied to claims 2-3, 7-8, 14-15 and 19-23 above, and further in view of Juran et al. (U.S. Patent No. 6,016,447).

Juran et al. teaches of a method and apparatus for power conservation functionality in implantable medical devices such as pacemakers, neurostimulators, or any kind of implantable pulse generator designed to stimulate the body electrically when implanted (col. 4 lines 58-65). Juran et al. also teaches that it is well known in the art that unnecessary pulses waste energy (col. 1 lines 43-53); thus, it is inherent that skipping a stimulation pulse or pulses would reduce the power consumption of an electrical stimulation pulse generator.

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of North et al. and Lynch as applied above, with

the teachings of Juran et al. North et al., Lynch and Juran et al. all teach of neurostimulation systems and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art to modify the teachings of North et al. and/or Lynch to have reduction in power consumption of neurostimulation system by skipping stimulation pulses, since the would increase the efficiency of the neurostimulation system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kastrubin et al. (U.S. Patent No. 4,121,593), Stanton (U.S. Patent No. 4,392,496), Lynch (U.S. Patent No. 4,934,368), Mullet (U.S. Patent No. 5,031,618), Campos (U.S. Patent No. 5,097,833), Collins (U.S. Patent No. 5,251,621), Schaldach et al. (U.S. Patent No. 5,354,320), Madsen et al. (U.S. Patent No. 5,776,173), Michelson et al. (U.S. Patent No. 6,445,955), Deno et al. (U.S. 2004/0049235), Skolnick (WO 87/07511).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenwood Faulcon, Jr. whose telephone number is 571-272-6090. The examiner can normally be reached on Monday-Thursday from 9 to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes, can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lenwood Faulcon, Jr.

George Manuel

Primary Examiner